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110. (Amended) The communication system of claim 10, in which the first loop has a wide bandwidth to acquire carrier frequency lock and the second loop has a narrow bandwidth to track carrier frequency after carrier frequency lock.

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111. (New) A digital communication system comprising:
a front end receiving an input spectrum at an intermediate frequency, the input spectrum including an inserted pilot signal;
first and second nested tracking loops, the first loop acquiring carrier frequency lock in operative response to the pilot signal of the received spectrum, the second loop providing a signal adapted to position the spectrum at a predetermined location relative to baseband in operative response to said pilot signal; and
a third tracking loop coupled to define a symbol timing parameter in operative response to said pilot signal.

REMARKS

A request for continued examination is being filed concurrently herewith.

The written description has been amended as proposed by the Examiner.

In the Office action, claim 10 was rejected under 35 USC 102 and claims 105-110 were designated as containing allowable subject matter. Claim 10 has been amended to incorporate the limitations of claim 105, which has been cancelled.

New claim 111 is presented for examination. This claim, which takes into account the examiner's comments in a telephone interview, tracks the original language of claim 10, except the term "pilot" is used instead of the term "predetermined frequency component".

In view of the amendments made at this time and the foregoing remarks, reconsideration and allowance of this application are requested.

Application No. 09/433,730

Attached hereto is a marked-up version of the changes made to the above-identified application by the current amendment. The attached page is captioned "Version with markings to show changes made."

Respectfully submitted,

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By



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please amend claims 10, 106 and 110 as follows:

10. (Twice Amended) A digital communication system comprising:

a front end receiving an input spectrum at an intermediate frequency, the input spectrum including an inserted predetermined frequency component, the front end having a signal path comprising in the order recited a first signal mixer, a signal sampler, a second signal mixer, and an equalizer, the first signal mixer lying in the first loop, the second signal mixer lying in the second loop, and the signal sampler lying in the third loop;

first and second nested tracking loops, the first loop acquiring carrier frequency lock in operative response to the predetermined frequency component of the received spectrum, the second loop providing a signal adapted to position the spectrum at a predetermined location relative to baseband in operative response to said predetermined frequency component; and

a third tracking loop coupled to define a symbol timing parameter in operative response to said predetermined frequency component.

106. (Amended) The communication system of claim [~~105~~] 10, in which the first and second loops each have a controllable oscillator and a single phase detector for adjusting both oscillators responsive to the output of the second mixer.

110. (Amended) The communication system of claim [~~105~~] 10, in which the first loop has a wide bandwidth to acquire carrier frequency lock and the second loop has a narrow bandwidth to track carrier frequency after carrier frequency lock.



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Title **Dual Mode QAM/VSF Receiver**

Client ID **18600**
Case No **33754**

Ser/Pat/Reg No: **09/433,730**

Atty/Sec **LTR/amb**
Date Mailed **8/7/02**

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____ Assigned Enclosed (List Assignee)

Cert of Mailing **yes**
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DOCUMENT TITLE:
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**REQUEST FOR CONTINUED EXAMINATION
TRANSMITTAL**

- Fee, Calculation Sheet
- Check (\$740)
- Amendment After Final

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ACKNOWLEDGE HERE

